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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/642,647	08/19/2003	Yasuyuki Miura	1640.1019	3742

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EXAMINER	
WANG, CLAIRE X	
ART UNIT	PAPER NUMBER
2624	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/642,647	MIURA ET AL.	
	Examiner	Art Unit	
	Claire Wang	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

Claim Objections

2. Claims 1, 3, 7 and 9 are objected to because of the following informalities:

In claims 1, 3, 7 and 9, the phrase "and/or" is used. Said phrase is considered to be indefinite (see MPEP 2173.02). For the purpose of continuing prosecution said phrase is read as "or" in claims 1, 3, 7 and 9.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).
>
> In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 9 defines a real-time contents editing program embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium

and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed real-time contents editing program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody the program on "computer-readable medium" or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

For the purpose of continuing prosecution claim 9 is read as "a real-time content editing program residing on a computer-readable medium."

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

5. Claims 1-9 are rejected under 35 U.S.C. 112 second paragraph.

As to claims 1-3 and 9 recite the limitation "the kind and use frequency" in lines 16, 5, 17 and 17, respectfully. There is insufficient antecedent basis for this limitation in the claim.

As to claims 4-8, they are rejected because they are dependent upon the above independent claims.

For the purpose of continuing prosecution said limitation is read as "a kind and use frequency."

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tan et al. (US 6,542,549 B1) (from this point forward will be referred to as Tan) in view of Kato (US 6,744,927 B1).

As to claim 1,Tan teaches a real-time contents editing method for editing a large number of images, including live images, and/or voices which are present in a dispersed fashion on the Internet, and distributing the edited images and/or voices to a plurality of users (method for regulating the computational and memory requirements of a compressed bit stream in a video, which may be used in the field of multimedia audio-visual coding and compression; Col. 1, lines 9-17), the method comprising: a plurality of distribution modules each adapted to code an input image (VOP coding types consists of I, P and B-VOPs or I and P-VOPs; Col. 6, lines 40-45), by use of a coding standard which enables coding while selecting one of a plurality of coding algorithms and to distribute the coded input image, a plurality of receiving modules each adapted to receive and display the distributed image (the VOPs are first decoded then displayed; Col. 6, lines 42-42), and at least one editing module (The video

buffering verifier (VBV); Col. 11, line 29); and causing each distribution module to change, in accordance with the performance level of a machine to be used, the kind and use frequency of a video object plane (VOP) to be used, to thereby select a coding algorithm which enables highly efficient compression (VBV is an algorithm for checking a bit stream with its delivery rate function to make sure that the delivery rate does not overwhelm the receiving system; Col. 11, lines 29-43).

Tan teaches of input data being pictures (Col. 2, line 30), however Tan does not teach the input pictures are provided by a plurality of video cameras. Kato teaches of a data communication system using multiple input cameras and processors to allow transmission of images through network communication (Fig. 2). Thus Kato's data communication system reads on the claimed camera input data. Therefore, it is obvious to one ordinarily skilled in the art at the time of the invention to combine the bit-stream compression system of Tan with the camera since it is well known in the art to use cameras to obtain images.

As to claim 2, Tan teaches wherein processes for coding the input image are divided into basic processes(case 1: I and P-VOPs only; Col. 6, lines 50-67 and Col. 7, lines 1-9) and auxiliary processes (case 2: I, P and B-VOPs; Col. 7, lines 11-20); a coding execution time of each of the basic and auxiliary processes is measured (Fig. 5 shows presentation time stamps of each process); and the kind and use frequency of a video object plane (VOP) to be used is changed on the basis of results of the measurement (Fig. 5 shows different VOPs used).

As to claim 3, it is the same as claim 1. The only difference between the two claims is that claim 1 is a method whereas claim 3 is a system. Therefore, claim 3 is analyzed in the same way as claim 1. Please see above for details.

As to claim 4, Tan teaches wherein the performance of the machine is determined through monitoring a time required to execute a process (Col. 12, lines 29-42 teaches tao-sub-i is the composition time of VOP); and an appropriate one of the plurality of coding algorithms is selected on the basis of a result of the monitoring (Col. 12, lines 43-59 teaches depending on the time delay either I or P frames of VOP is decoded).

As to claim 5, Tan teaches wherein the monitoring of a time required to execute a process is performed through measurement, in the system, of a time required for coding of a video object plane (VOP) (tao-sub-i is the composition time of VOP; Col. 12, lines 29-30); and a determination as to whether inter-frame compression should take place is made on the basis of the measured time and a predetermined average frame rate (Col. 12, lines 43-59 teaches depending on the time delay either I or P frames of VOP is decoded).

As to claim 6, Tan teaches wherein the coding standard is the MPEG-4 standard (VOP is only used by MPEG-4 compression, Tan's invention talks about decoding VOP therefore it is using MPEG-4 coding standard; Col. 4, lines 19-24).

As to claim 7, Kato teaches wherein the editing module is adapted to request a distribution server to multicast the images or voices (Fig. 11 shows the connection between multiple clients with the server to transmitting images and voices), and is adapted to generate and multicast a scene description language to be transmitted to a plurality of clients (Fig. 3 shows an example of how the images can be displayed on a screen, multiple images may be displayed at the same time on a screen).

As to claim 8, Tan teaches wherein the coding process according to the selected coding algorithm is carried out in a step-by-step manner such that required minimum coding is completed after lapse of a predetermined time (B-VOPs are the basic frames that are always composed; Col. 12, lines 45-47), whereupon an auxiliary coding process of enhanced resolution and compression rate is carried out (the composition of I or P VOP is delayed until all B-VOPs are composed; Col. 12, lines 45-47); and if a relevant auxiliary coding process is not completed when a limited period of time has elapsed, the auxiliary coding process is interrupted, and the result of the coding process in an immediately preceding step is distributed (Col. 12, lines 58-64 shows the determination of the decoding time and the presentation order verses the decoding order; notice that in the presentation order some of the P frames are cut out of the original decoding order because the lack of time).

As to claim 9, it is the same as claim 1. The only difference between the two claims is that claim 1 is a method whereas claim 9 is a computer program. Therefore, claim 9 is analyzed in the same way as claim 1. Please see above for details.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Auyeung et al. (US 5,677,969) teaches a method for preventing overflow and underflow of a decoder buffer in a video compression system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Claire Wang whose telephone number is 571-270-1051. The examiner can normally be reached on Mid-day flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso can be reached on 571-272-7695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Claire Wang
01/29/2007

JOSEPH MANCUSO
SUPERVISORY PATENT EXAMINER